

30. (Newly Added) An isolated nucleic acid molecule comprising a heat-inducible promoter wherein the promoter is selected from the group consisting of:


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- (a) a nucleic acid sequence comprising the promoter sequence of a *Hansenula polymorpha* gene encoding a protein having trehalose-6-phosphate synthase activity;
  - (b) a nucleic acid having the sequence set forth in SEQ ID NO:1;
  - (c) a nucleic acid having a sequence which exhibits at least 40% identity over a length of 300 bp with one of the sequences in (a) or (b); 112, 1st w. 1000.
  - (d) a nucleic acid which hybridizes with the complementary strand of the nucleic acid set forth in one of (a), (b) or (c);
  - (e) a derivative of one of the nucleic acids set forth in one of (a), (b) or (c) wherein the derivative is obtained by substitution, addition and/or deletion of one or more nucleotides; 112, 1st
  - (f) a fragment of one of the nucleic acids set forth in any one of claims (a) to (e) which retains the function of the heat-inducible promoter; 112, 1st
  - (g) a combination of a plurality of the nucleic acids set forth in any one of (a) to (f), wherein the sequences of each of the nucleic acids may be different or the same; and
  - (h) a nucleic acid molecule having a sequence complementary to the sequence of one of the nucleic acids indicated in (a) to (g),

wherein the nucleic acid molecule does not consist of the promoter sequence of the trehalose-6-phosphate synthase gene of *Saccharomyces cerevisiae* or *Schizosaccharomyces pombe*.

- 31. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid in (c) exhibits at least 60% identity over a length of 300 bp with one of the sequences indicated in (a) or (b), or with the complementary sequence thereof.
- 32. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid in (c) exhibits at least 80% identity over a length of 300 bp with one of the sequences indicated in (a) or (b), or with the complementary sequence thereof.
- 33. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid in (c) exhibits at least 90% identity over a length of 300 bp with one of the sequences indicated in (a) or (b), or with the complementary sequence thereof.

34. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid in (c) exhibits at least 95% identity over a length of 300 bp with one of the sequences indicated in (a) or (b), or with the complementary sequence thereof.
35. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid molecule comprises at least one heat shock element having the sequence NGAANNNNNNGAAN (SEQ ID NO:2) or the complementary sequence thereof, wherein the nucleotides denoted by N may be any one of A, T, C or G.
36. (Newly Added) The isolated nucleic acid of claim 35, wherein the nucleic acid molecule comprises at least one heat shock element having the sequence NGAANNBWMNNGAAN (SEQ ID NO:3) or the complementary sequence thereof, wherein B is G, C, or T, W is A or T, and M is C or A.
37. (Newly Added) The isolated nucleic acid of claim 35, wherein the heat shock element is selected from TGAAGCCTCTTGAAA (SEQ ID NO:4), TGAATATAAAGGAAA (SEQ ID NO:5), the complementary sequences thereof, and any combination thereof, wherein when two or more heat shock elements are present, each element may have the same or different sequences.
38. (Newly Added) The isolated nucleic acid of claim 37, wherein the nucleic acid molecule comprises at least two heat shock elements having different sequences.
39. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid does not contain an STRE element having the sequence CCCCT or AGGGG.
40. (Newly Added) The isolated nucleic acid of claim 30, wherein the fragment in (f) comprises the sequence from nucleotide 228 to nucleotide 792 in SEQ ID NO:1.
41. (Newly Added) The isolated nucleic acid of claim 30, wherein the fragment in (f) comprises the sequence from nucleotide 492 to nucleotide 792 in SEQ ID NO:1.
42. (Newly Added) The isolated nucleic acid of claim 30, wherein the fragment in (f) comprises the sequence from nucleotide 627 to nucleotide 713 in SEQ ID NO:1.
43. (Newly Added) The isolated nucleic acid of claim 30, wherein the nucleic acid molecule further comprises at least one nucleic acid sequence encoding a heterologous gene under the transcriptional control of the heat-inducible promoter.
44. (Newly Added) The isolated nucleic acid of claim 30, further comprising a nucleic acid sequence under the control of the promoter, the nucleic acid under control of the promoter being selected from the group consisting of:

- (i) a nucleic acid sequence which encodes a polypeptide having the amino acid sequence of the trehalose-6-phosphate synthase of *Hansenula polymorpha*;
  - (ii) the nucleic acid sequence of SEQ ID NO:6;
  - (iii) a nucleic acid sequence which exhibits at least 80% identity with SEQ ID No:6;
  - (iv) a nucleic acid sequence which encodes a polypeptide having the amino acid sequence indicated in SEQ ID NO:7 or a partial sequence thereof, wherein the polypeptide has trehalose-6-phosphate synthase activity;
  - (v) a nucleic acid sequence which encodes a polypeptide having an amino acid sequence which has at least 80% identity with SEQ ID NO:7.
45. (Newly Added) The isolated nucleic acid of claim 44, wherein the nucleic acid sequence in (iii) exhibits at least 90% identity with SEQ ID NO:6.
- A2 46. (Newly Added) The isolated nucleic acid of claim 44, wherein the nucleic acid sequence in (v) encodes a polypeptide with an amino acid sequence having at least 90% identity with SEQ ID NO:7.
47. (Newly Added) A non-naturally occurring host cell containing The isolated nucleic acid of claim 30, the host cell being a prokaryotic or eukaryotic cell.
48. (Newly Added) The host cell of claim 47, wherein the eukaryotic cell is a fungal cell.
49. (Newly Added) The host cell of claim 48, wherein the fungal cell is a yeast cell.
50. (Newly Added) The host cell of claim 49, wherein the yeast cell is *Hansenula polymorpha*.
51. (Newly Added) An expression vector comprising at least one nucleic acid molecule of claim 30.
52. (Newly Added) A kit, comprising:
- (a) the expression vector of claim 51, which is suitable for having cloned into it a nucleic acid which encodes a recombinant protein; and
  - (b) a host cell suitable for induction of the heat-inducible promoter and for production of the recombinant protein.
53. (Newly Added) A method for producing a protein comprising:

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- (i) cloning at least one nucleic acid which encodes a recombinant protein into the expression vector of claim 51, wherein the nucleic acid encoding the recombinant protein is under the transcriptional control of a heat-inducible promoter;
  - (ii) introducing the expression vector obtained in (i) into a host cell suitable for induction of the heat-inducible promoter and for production of the recombinant protein;
  - (iii) cultivating the host cell obtained in (ii);
  - (iv) inducing the heat-inducible promoter to express the protein.
54. (Newly Added) The isolated nucleic acid of claim 37, wherein the nucleic acid does not contain an STRE element having the sequence CCCCT or AGGGG.
55. (Newly Added) The isolated nucleic acid of claim 37, wherein the nucleic acid molecule further comprises at least one nucleic acid sequence encoding a heterologous gene under the transcriptional control of the heat-inducible promoter.
56. (Newly Added) A non-naturally occurring host cell containing The isolated nucleic acid of claim 37, the host cell being a prokaryotic or eukaryotic cell.
57. (Newly Added) An expression vector comprising at least one isolated nucleic acid molecule of claim 37.
58. (Newly Added) A kit, comprising:
- (a) the expression vector of claim 57, which is suitable for having cloned into it a nucleic acid which encodes a recombinant protein; and
  - (b) a host cell suitable for induction of the heat-inducible promoter and for production of the recombinant protein.
59. (Newly Added) A method of expressing a protein comprising:
- (a) an expression vector comprising at least one nucleic acid molecule of claim 55; and
  - (b) a host cell capable of expressing the protein.
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